AD0102036C2

Service Manual

Amplifier

SE-HD350

Colour

(N).....Gold Type

Areas

(E).....Europe.

(EB).....Great Britain.

(EG).....Germany, Italy, France.

(EP).....Russia.

SPECIFICATIONS

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System	SC-HD350
Tuner	ST-HD350
Amplifier	**SE-HD350**
CD Player	SL-HD350
Cassette Deck	RS-HD350
Speakers*	SB-HD350

*: Made in Spain.

Specifications

Amplifier section

Power output:
- **DIN 1 kHz, THD 1 %, both channels driven;** 2 × 17 W (6 Ω)
- **RMS 1 kHz, THD 10 %, both channels driven;** 2 × 22 W (6 Ω)

Total harmonic distortion:
- **Half power at 1 kHz;** 0.07 % (6 Ω)

Load impedance: 6 Ω

S/N: 78 dB
- **Rated power, 2 V Input, VGCA ON;** 98 dB

Headphones

Jack type: 3.5 mm STEREO

Load impedance: 16 – 32 Ω

General

Power supply:
- **(E), (EG), (EP) areas;** AC 230 V, 50 Hz
- **(EB) area;** AC 230 – 240 V, 50 Hz

Power consumption: 73 W
- **STANDBY condition;** 0.9 W

Dimensions (W×H×D): 206×104.8×273 mm

Mass: 2.7 kg

Notes: Specifications are subject to change without notice.
Mass and dimensions are approximate.
Total harmonic distortion is measured by the digital spectrum analyzer.

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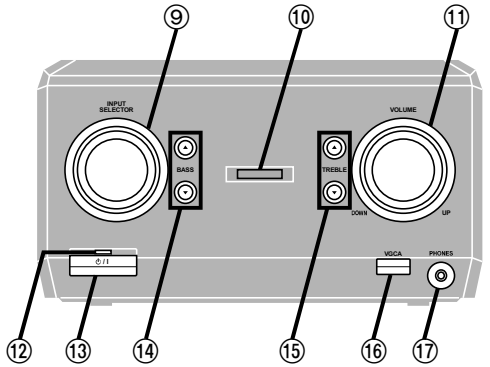
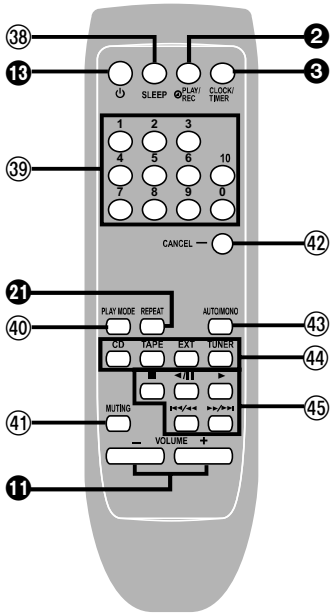
A



A Amplifier

⑨ **Input selector (INPUT SELECTOR)**
⑩ **VGCA indicator (VGCA)**
⑪ **Volume control (VOLUME)**
⑫ **Standby indicator**
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
⑬ **Standby/on switch (⏻/I)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
⑭ **Bass buttons (BASS ▲, ▼)**
⑮ **Treble buttons (TREBLE ▲, ▼)**
⑯ **VGCA (variable gain control amplifier) button (VGCA)**
⑰ **Headphone jack (PHONES)**

B



B Remote control

Buttons ❷, ❸, ⓫, ⓲, and ㉑ function in the same way as the controls on the main unit.

㊳ **Sleep timer button (SLEEP)**
㊴ **Numbered buttons**
㊵ **Play mode button (PLAY MODE)**
㊶ **Muting button (MUTING)**
㊷ **Cancel button (CANCEL)**
㊸ **FM mode button (AUTO/MONO)**
㊹ **Input select buttons (CD, TAPE, EXT, TUNER)**
㊺ **Basic operating buttons**
Function changes according to the source.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

1. Before Repair

1. Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C601, C602) in order to discharge the voltage.
2. Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz in NO SIGNAL mode should be shown below with respectto supply voltage 230/240 V.

Power supply voltage	AC 230 V	AC 240 V
Consumed current 50 Hz	30 - 140 mA	

2. Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is supplied.

- Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are shorted, or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined bellow:

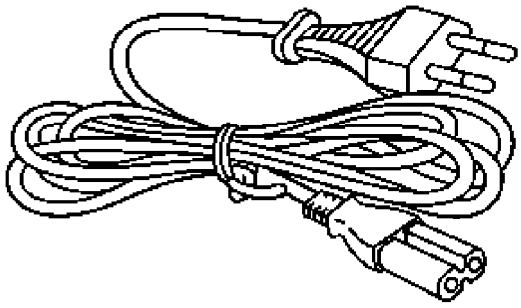
1. Press the Standby/on button, switch to standby mode.
2. Determine the cause of the problem and correct it.
3. Press the Standby/on button once again, supply the power.

Note:

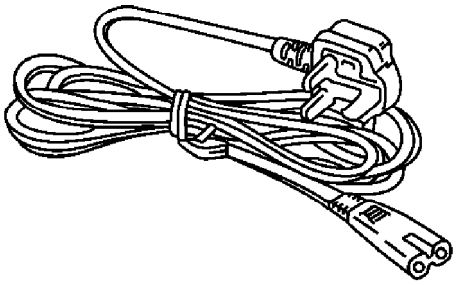
When the protection circuitry functions, the unit will not operate unless the Standby/on button is first switched Standby and then ON again.

3. Accessories

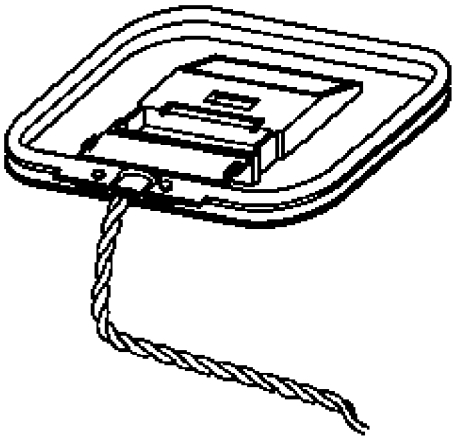
- AC power supply cord for (E), (EG), (EP) areas
(RJA0019-1X).....1 pc.



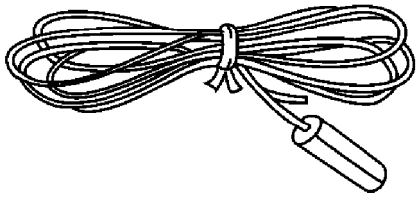
- AC power supply cord for (EB) area
(RJA0053-2X).....1 pc.



- AM loop antenna set
(RSA0033B).....1 pc.

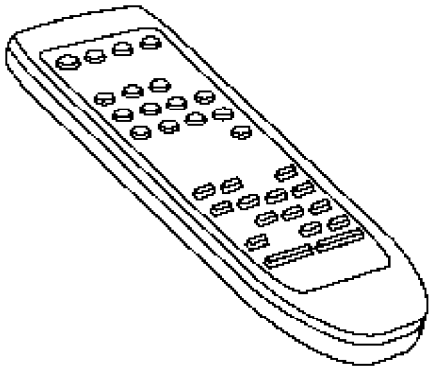


- FM indoor antenna
(RSA0007).....1 pc.

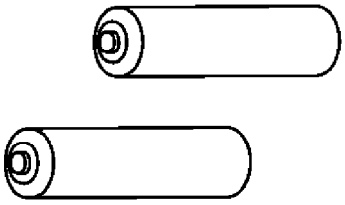


- Speaker cords
(REE1057) (Red, Black).....2 pcs.

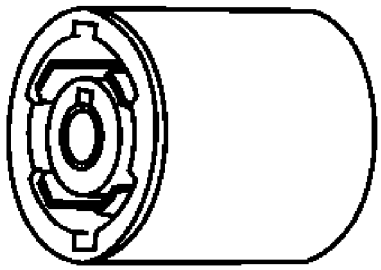
- Remote control transmitter
(EUR7702010).....1 pc.



- Remote control batteries
(R6/LR6, AA, UM-3).....2 pcs.
Note: These are available on sales route.



- Antenna plug adaptor for (EB) area
(SJP9009).....1 pc.



4. Caution for AC Mains Lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⟨ASTA⟩ or the BSI mark ⟨BSI⟩ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

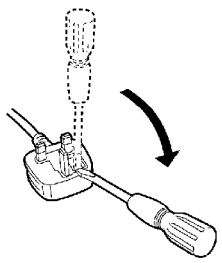
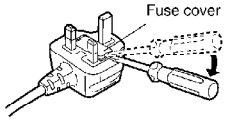


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

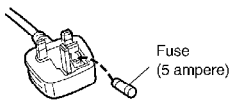
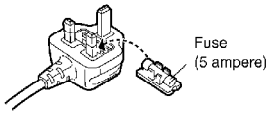


Figure B

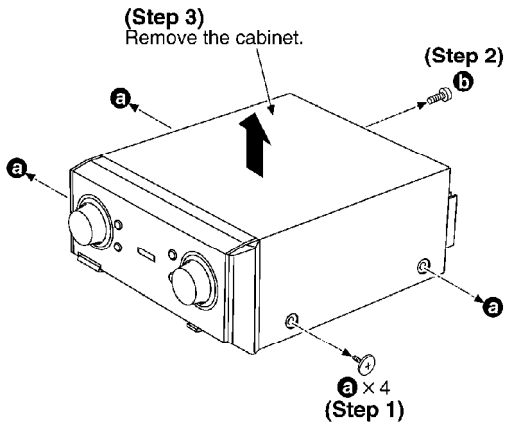


5. Location of Controls

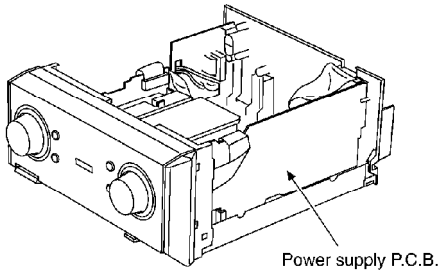
6. Operation Checks and Component Replacement / Procedures

- This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

6.1. Checking for the power supply P.C.B.

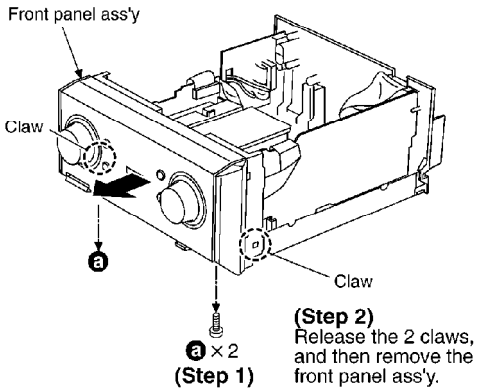


- Check the power supply P.C.B. as shown below.

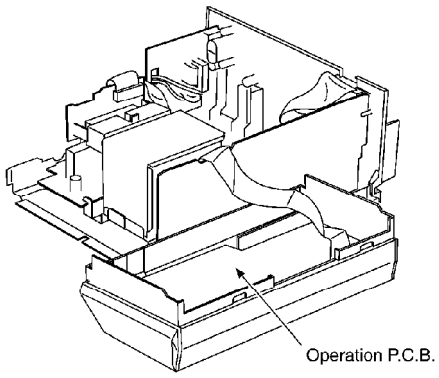


6.2. Checking for the operation P.C.B.

- Follow the (Step 1) - (Step 3) of item 6.1.

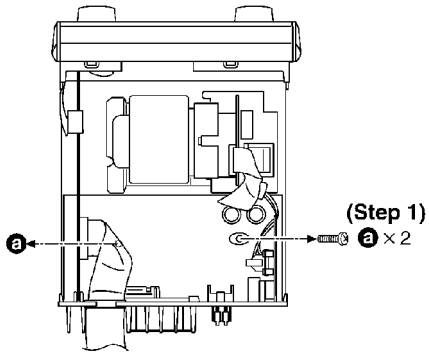


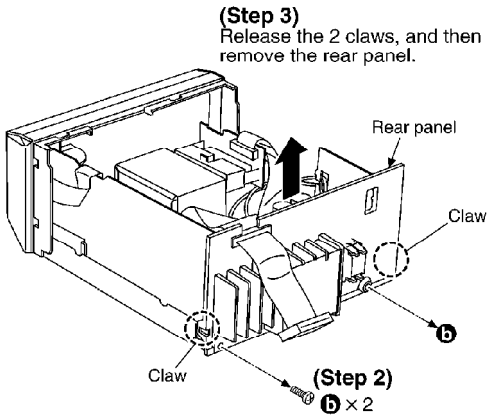
- Check the operation P.C.B. as shown below.



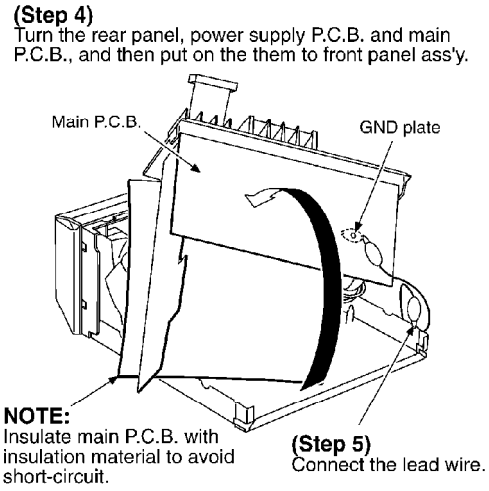
6.3. Checking for the main P.C.B.

- Follow the (Step 1) - (Step 3) of item 6.1.





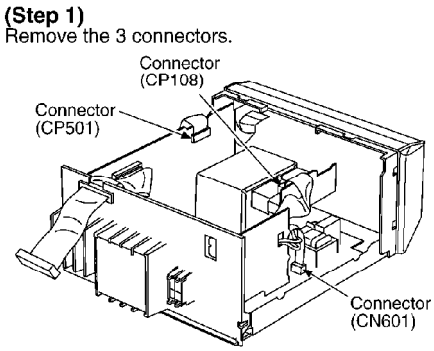
- Check the main P.C.B. as shown below.

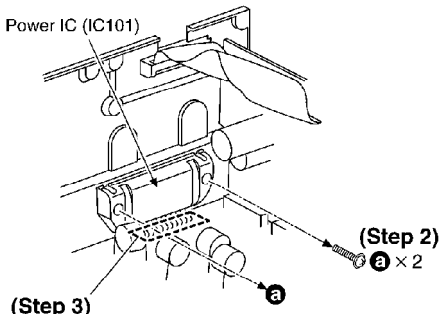

(Step 4)
Turn the rear panel, power supply P.C.B. and main P.C.B., and then put on the them to front panel ass'y.
Main P.C.B.
GND plate
NOTE:
Insulate main P.C.B. with insulation material to avoid short-circuit.
(Step 5)
Connect the lead wire.

6.4. Replacement for the power IC

- Follow the (Step 1) - (Step 3) of item 6.1.

- Follow the (Step 1) - (Step 3) of item 6.3.





(Step 3)
Unsolder the terminals of power IC.

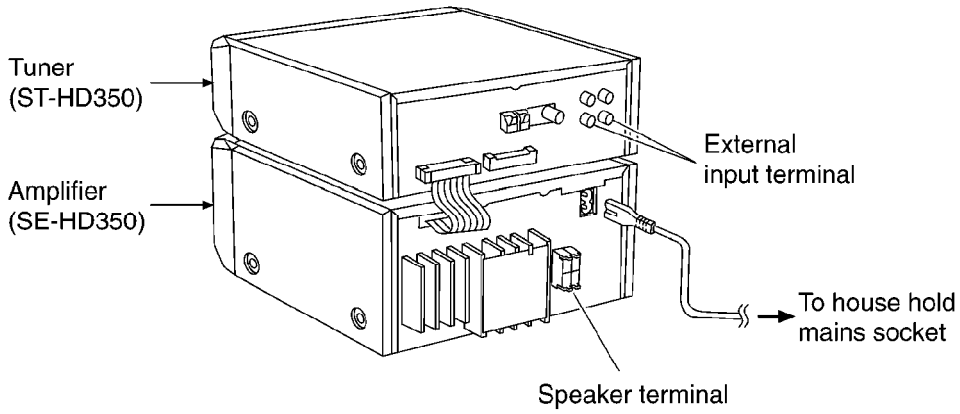
NOTE:
When mountiong the power IC apply silicone conpound (RFKX0002) to the rear side of power IC.

7. To Supply Power Source and Signal Check

To operate this unit SE-HD350 normally, it is necessary to connect to the unit ST-HD350. When operating the unit SE-HD350, be sure to connect to the unit ST-HD350 by connection cable.

1. **Connect with the Tuner (ST-HD350). Refer to Fig. 7-1.**
2. **Connect the AC power supply cord to the Amplifier / (SE-HD350). Refer to Fig. 7-1.**
3. **Connect the speakers to speaker terminal. / Refer to Fig. 7-1.**
4. **Turn on the power of the Amplifier (SE-HD350).**
5. **Set INPUT SELECTER to select the external source (EXT) of the Amplifier (SE-HD350).**
6. **Input a sound signal to external input terminal of the Tuner (ST-HD350), and confirm to be outputted from the speaker.**

Fig. 7-1.



8. Schematic Diagram Notes

- This schematic diagram may be modified at any time with the development of new technology.

Notes:

S501:

Power standby/on switch (/I)

S503:

Bass down switch (BASS)

S504:

Bass up switch (BASS)

S505:

VGCA (variable gain control amplifier) switch (VGCA)

S506:

Treble down switch (TREBLE)

S507:

Treble up switch (TREBLE)

VR501:

Input selector VR (INPUT SELECTOR)

VR502:

Volume control VR (VOLUME)

- Indicated voltage values are the standard values for the unit

measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on theinternal impedance of the DC circuit tester.

No mark

: Power ON

- Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- The supply part number is described alone in the replacement parts list.

- Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

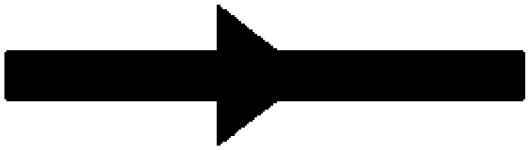
Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

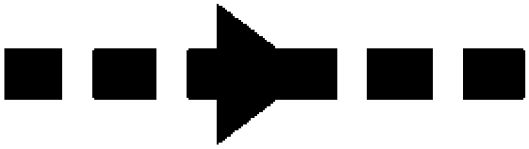
Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

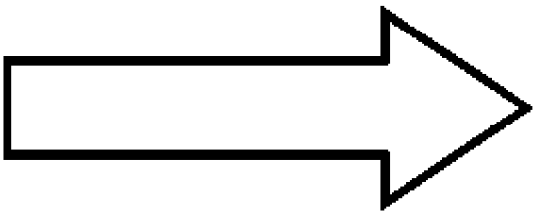
- Voltage and signal line



: Positive voltage line



: Negative voltage line



: Audio signal line

9. Schematic Diagram

10. Printed Circuit Board Diagram

11. Type Illustration of ICs, Transistors and Diodes

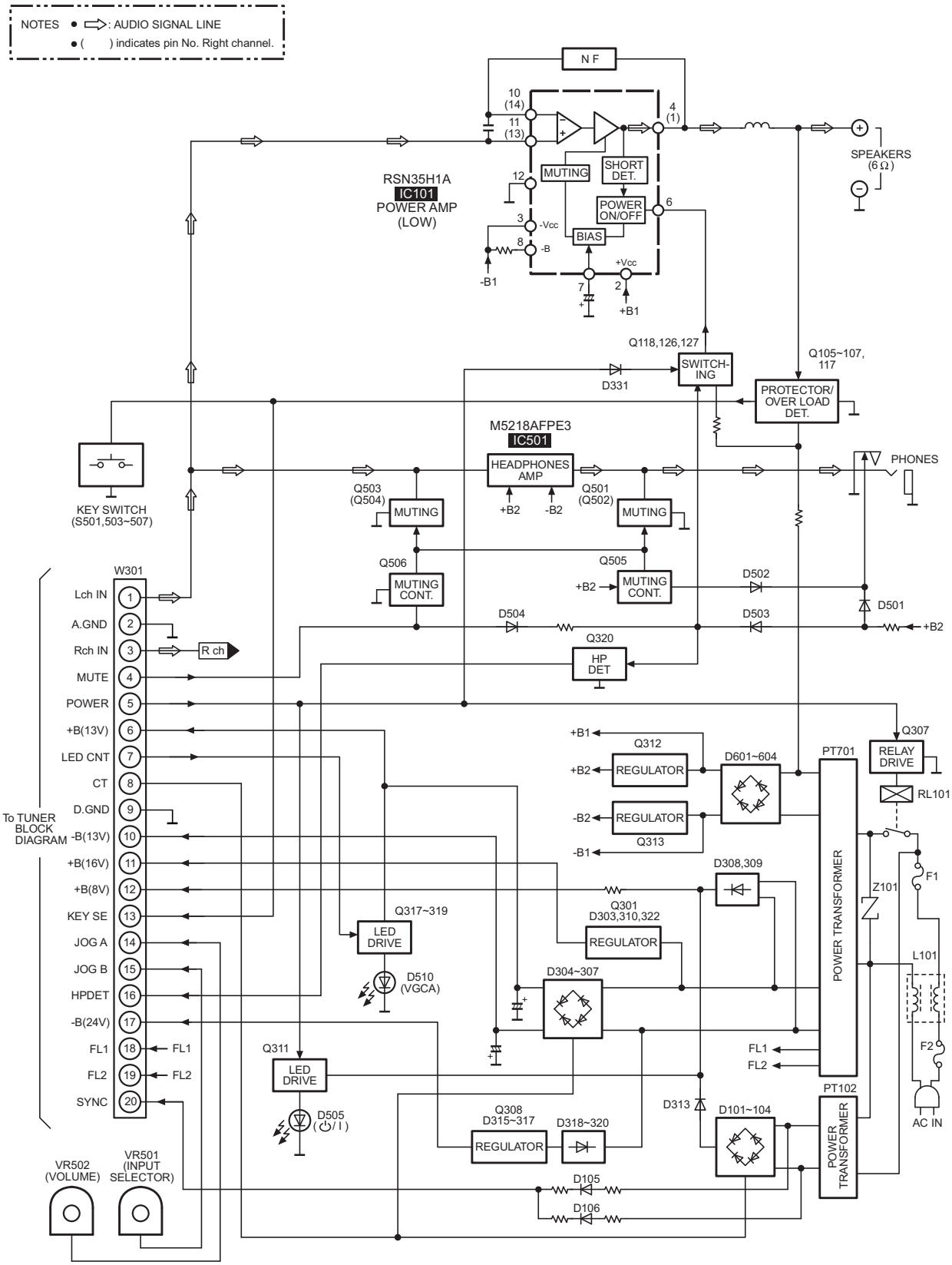
12. Wiring Connection Diagram

13. Block Diagram

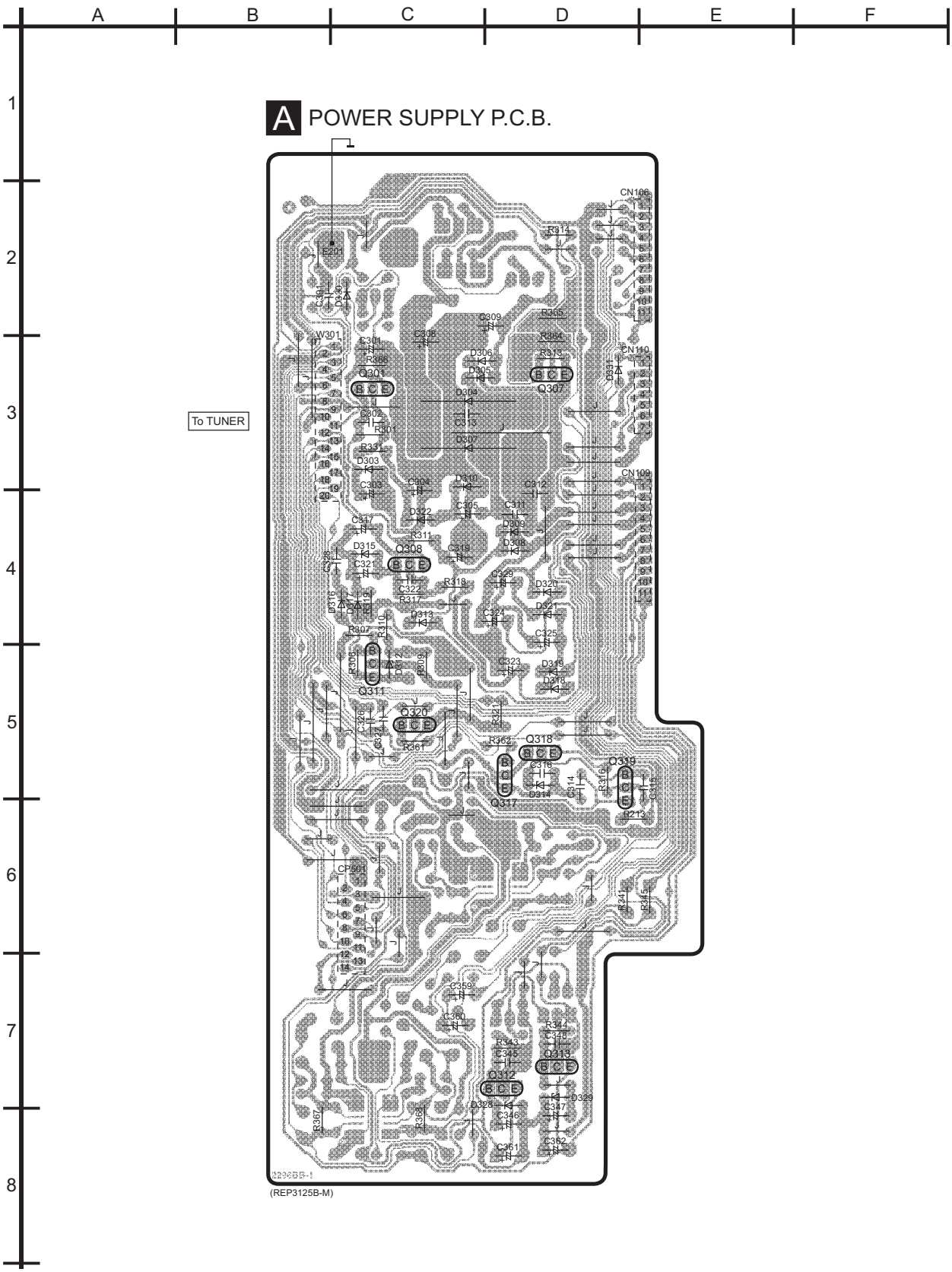
14. Replacement Parts List

Notes:

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
  When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
- The <IA> <IB> <IC> <ID> marks in Remarks indicate language of instruction manual.
  <IA>: Spanish
  <IB>: English
  <IC>: Netherlands, Swedish, Danish
  <ID>: German, French, Italian
- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
- The marking [RTL] indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependenton the type of

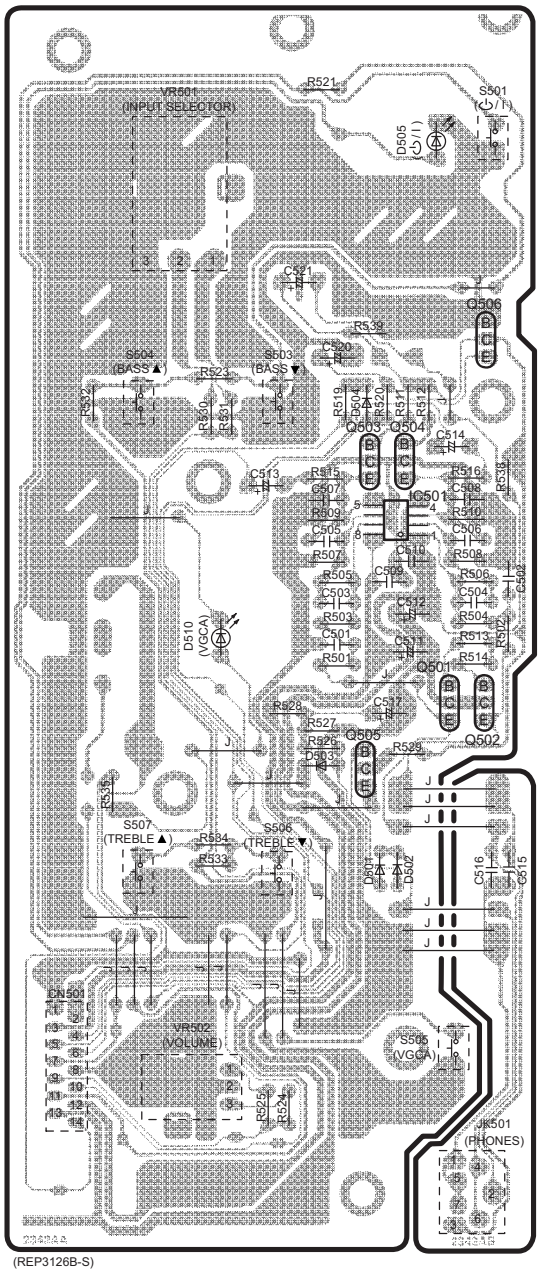

NOTES ● ⇨: AUDIO SIGNAL LINE
● ( ) indicates pin No. Right channel.
N F
RSN35H1A
IC101
POWER AMP
(LOW)
MUTING
SHORT DET.
POWER ON/OFF
BIAS
-Vcc
-B
+Vcc
-B1
+B1
SPEAKERS (6Ω)
Q118,126,127
SWITCH-ING
D331
Q105~107, 117
PROTECTOR/ OVER LOAD DET.
M5218AFPE3
IC501
HEADPHONES AMP
+B2
-B2
PHONES
KEY SWITCH (S501,503~507)
Q503 (Q504)
MUTING
Q501 (Q502)
MUTING
Q506
MUTING CONT.
Q505
MUTING CONT.
D502
D501
D504
D503
+B2
Q320
HP DET
W301
Lch IN
A.GND
Rch IN
R ch
MUTE
POWER
+B(13V)
LED CNT
CT
D.GND
-B(13V)
+B(16V)
+B(8V)
KEY SE
JOG A
JOG B
HPDET
-B(24V)
FL1
FL2
SYNC
To TUNER BLOCK DIAGRAM
Q312
REGULATOR
Q313
D601~604
PT701
RELAY DRIVE
Q307
RL101
D308,309
Q301
D303,310,322
REGULATOR
Q317~319
LED DRIVE
D510 (VGCA)
D304~307
POWER TRANSFORMER
Z101
F1
L101
F2
AC IN
Q311
LED DRIVE
D505 (⏻/I)
Q308
D315~317
REGULATOR
D318~320
D313
D101~104
PT102
POWER TRANSFORMER
D105
D106
VR502 (VOLUME)
VR501 (INPUT SELECTOR)

A POWER SUPPLY P.C.B.



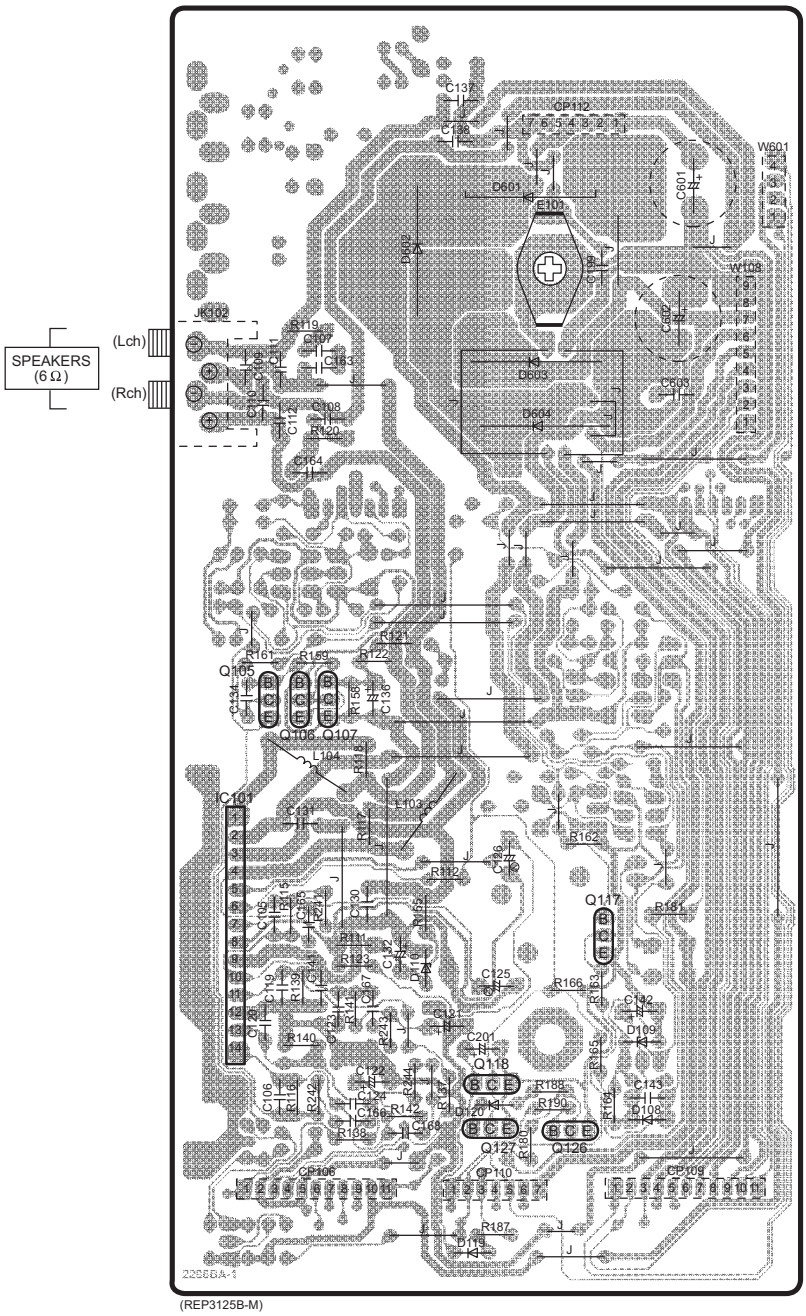
(REP3125B-M)

B OPERATION P.C.B.



(REP3126B-S)

C MAIN P.C.B.


SPEAKERS
(6Ω)
(Lch)
(Rch)
JK102
IC101
Q105
Q106
Q107
Q117
Q118
Q120
Q126
Q127
CP106
CP109
CP110
CP112
W601
W103
E103
D601
D602
D603
D604
D109
D119
R119
R120
R121
R122
R161
R163
R162
R181
R166
R188
R190
R187
C137
C138
C601
C602
C603
C163
C164
C108
C131
C125
C142
C143
C201
C122
C169
C106
C119
C130
C135
C136
C134
C112
C114
C115
C116
C117
C118
C123
C124
C126
C127
C128
C129
C132
C133
C140
C141
C144
C145
C146
C147
C148
C149
C150
C151
C152
C153
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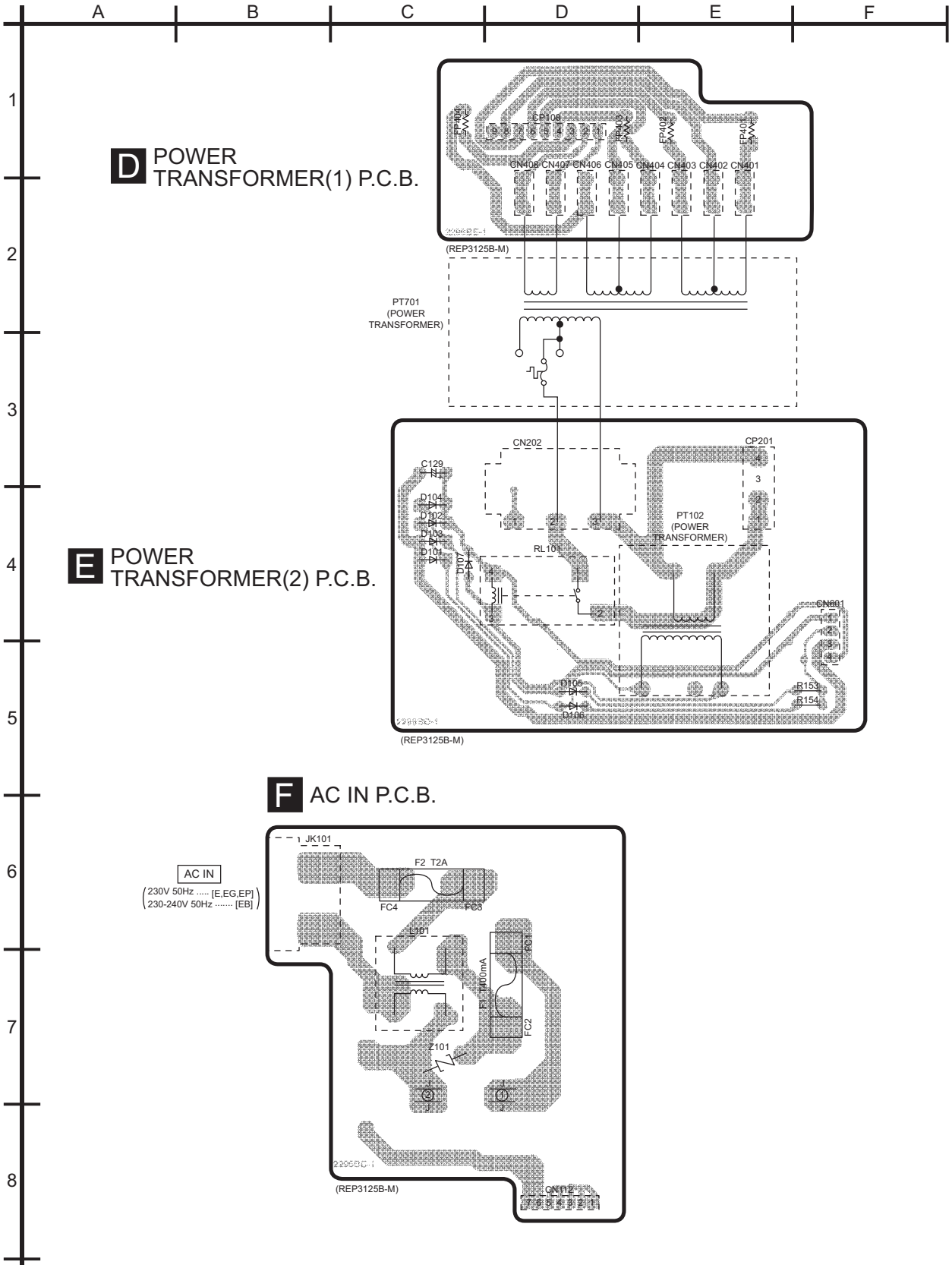
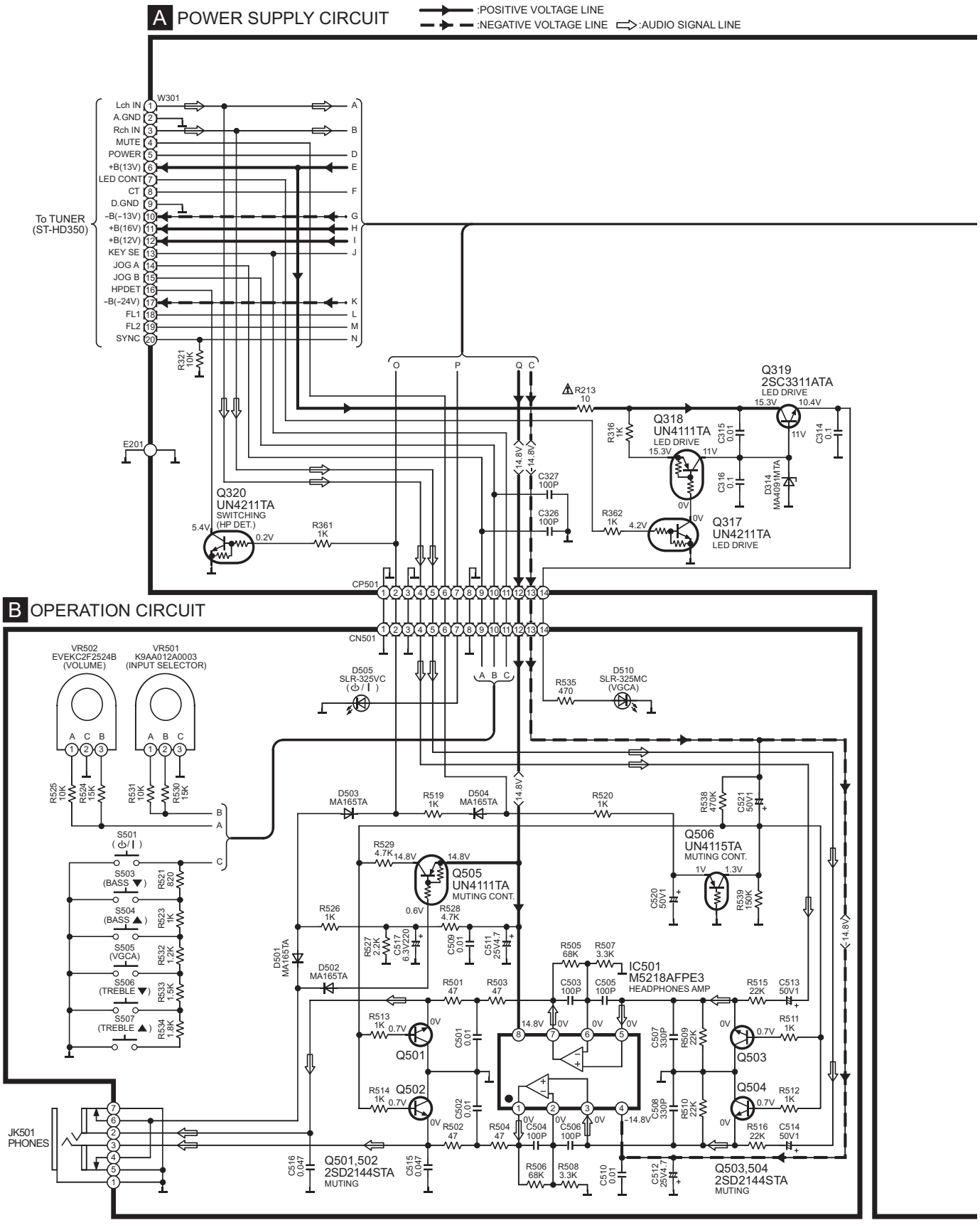
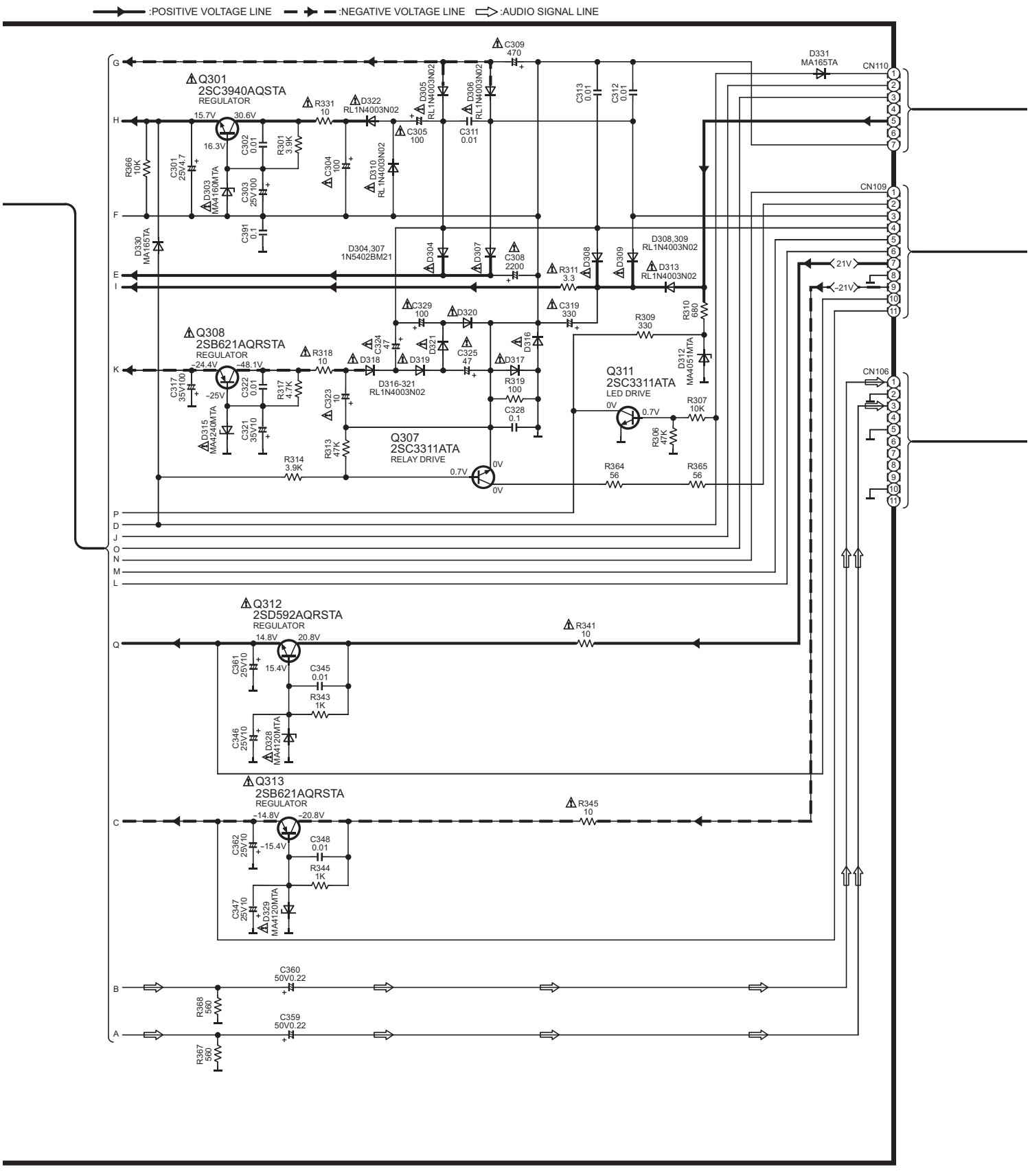
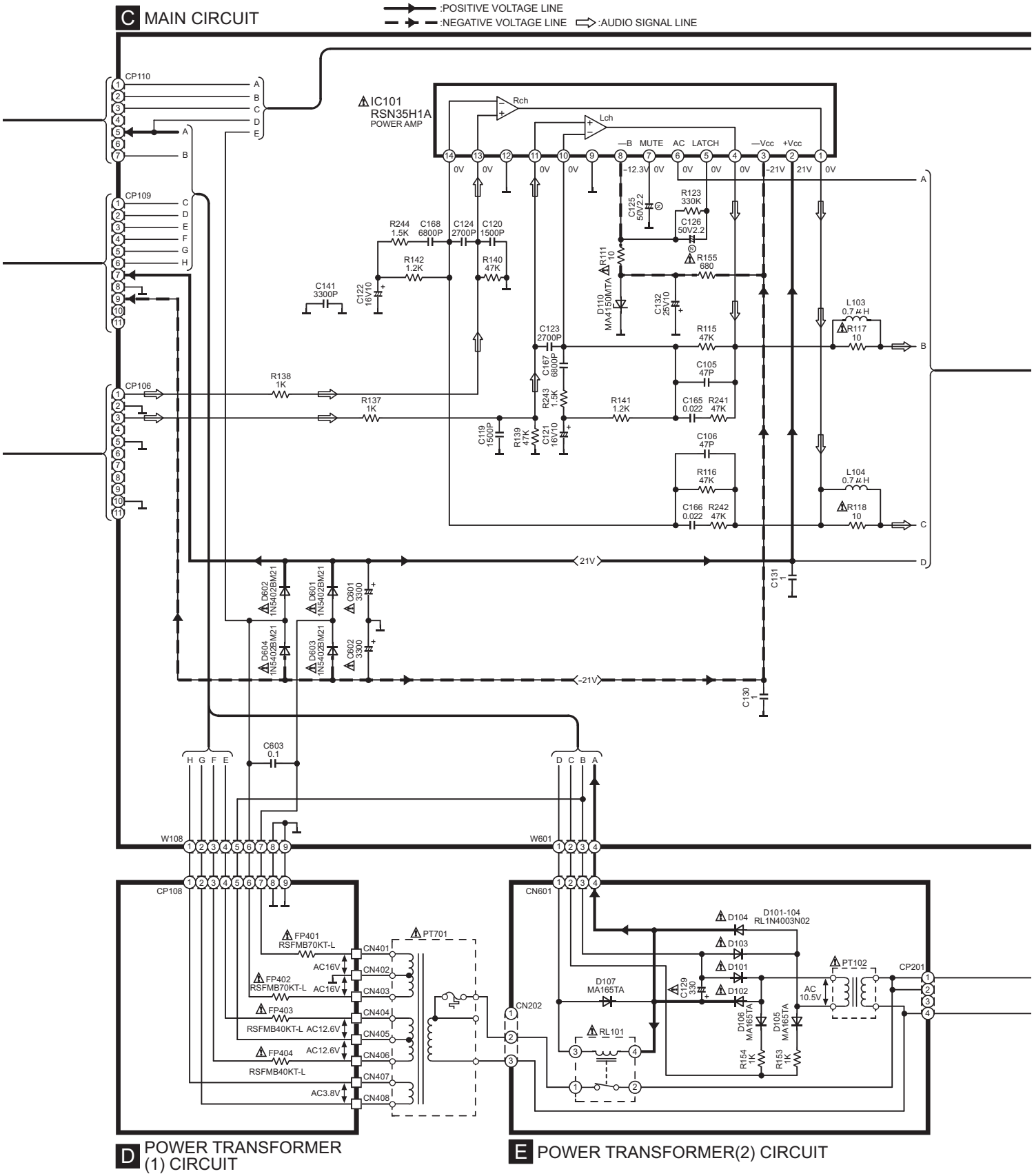
C192
C193
C194
C195
C196
C197
C198
C199
C200
C202
C203
C204
C205
C206
C207
C208
C209
C210

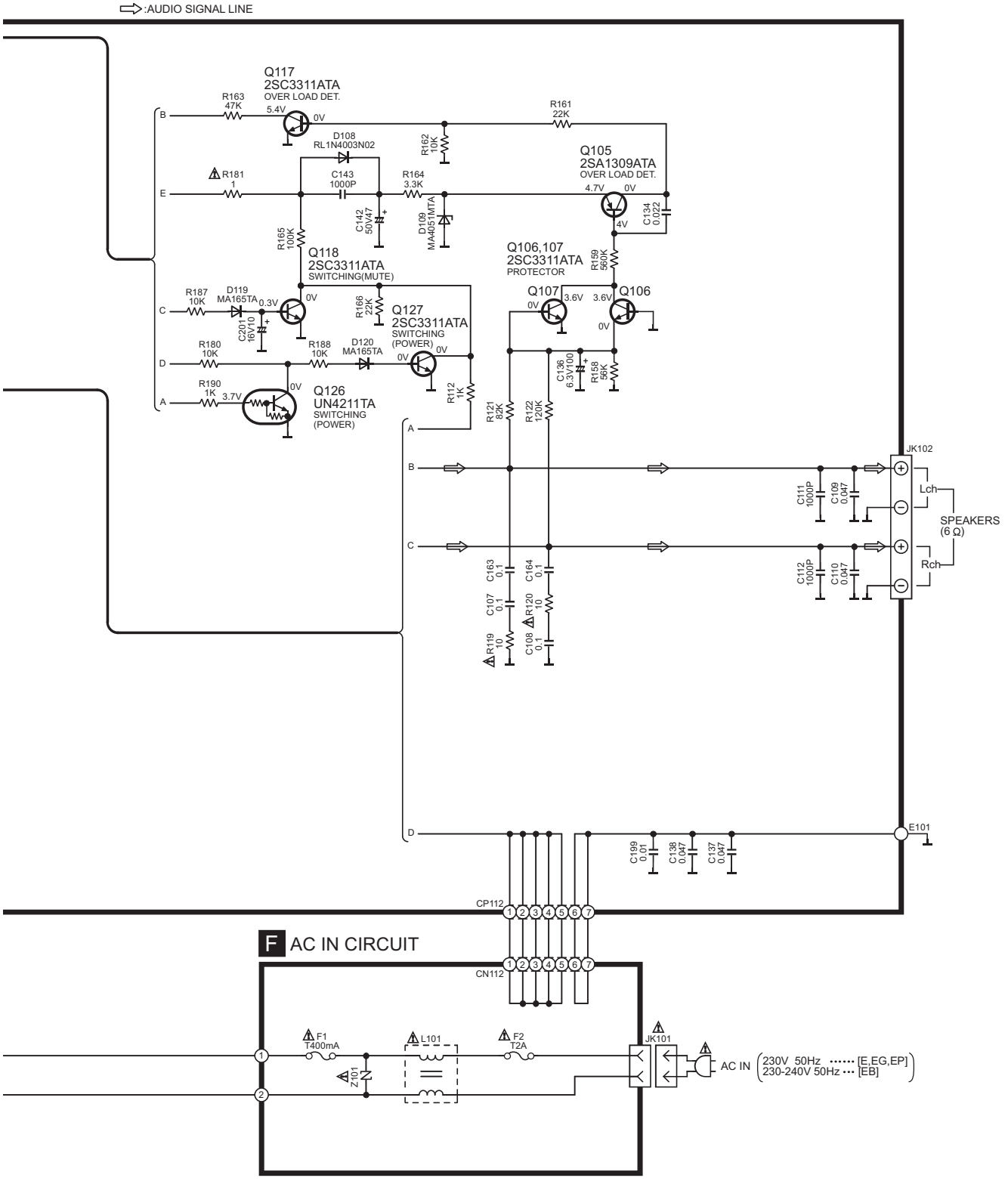

A
B
C
D
E
F
1
2
3
4
5
6
7
8
D POWER TRANSFORMER(1) P.C.B.
CP108
FP402
FP401
CN408 CN407 CN406 CN405 CN404 CN403 CN402 CN401
(REP3125B-M)
PT701 (POWER TRANSFORMER)
E POWER TRANSFORMER(2) P.C.B.
CN202
CP201
C129
D104
D102
D103
D101
D107
RL101
PT102 (POWER TRANSFORMER)
CN001
D105
D106
R153
R154
(REP3125B-M)
F AC IN P.C.B.
AC IN
230V 50Hz ..... [E,EG,EP]
230-240V 50Hz ..... [EB]
JK101
F2 T2A
FC4
FC3
L101
FC1
FC2
Z101
(REP3125B-M)
CN112


A POWER SUPPLY CIRCUIT
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:AUDIO SIGNAL LINE
W301
Lch IN
A.GND
Rch IN
MUTE
POWER
+B(13V)
LED CONT
CT
D.GND
-B(-13V)
+B(16V)
+B(12V)
KEY SE
JOG A
JOG B
HPDET
-B(-24V)
FL1
FL2
SYNC
To TUNER
(ST-HD350)
R321 10K
E201
Q320
UN4211TA
SWITCHING
(HP DET.)
5.4V
0.2V
R361 1K
C327 100P
C326 100P
14.8V
R213 10
Q319
2SC3311ATA
LED DRIVE
15.3V
10.4V
11V
Q318
UN4111TA
LED DRIVE
15.3V
11V
0V
R316 1K
C315 0.01
C316 0.1
C314 0.1
D314
MA4091MTA
R362 1K
4.2V
10V
Q317
UN4211TA
LED DRIVE
CP501
CN501
B OPERATION CIRCUIT
VR502
EVEKC2F2524B
(VOLUME)
VR501
K9AA012A0003
(INPUT SELECTOR)
D505
SLR-325VC
D510
SLR-325MC
(VGCA)
R535 470
R525 10K
R524 15K
R531 10K
R530 15K
S501
S503 (BASS ▼)
S504 (BASS ▲)
S505 (VGCA)
S506 (TREBLE ▼)
S507 (TREBLE ▲)
R521 820
R523 1K
R532 1.2K
R533 1.5K
R534 1.8K
D503 MA165TA
D504 MA165TA
R519 1K
R520 1K
R538 470K
C521 50V1
Q506
UN4115TA
MUTING CONT.
1V
1.3V
C520 50V1
R539 150K
R529 4.7K
14.8V
Q505
UN4111TA
MUTING CONT.
0.6V
R528 4.7K
R526 1K
R527 2.2K
C517 6.3V220
C509 0.01
C511 25V4.7
D501 MA165TA
D502 MA165TA
R505 68K
R507 3.3K
IC501
M5218AFPE3
HEADPHONES AMP
C503 100P
C505 100P
R515 22K
C513 50V1
R501 47
R503 47
R513 1K
0.7V
Q501
C501 0.01
R514 1K
Q502
C502 0.01
R502 47
R504 47
C504 100P
C506 100P
-14.8V
C507 330P
R509 22K
Q503
R511 1K
C508 330P
R510 22K
Q504
R512 1K
R516 22K
C514 50V1
JK501
PHONES
C516 0.047
C515 0.047
Q501,502
2SD2144STA
MUTING
R506 68K
R508 3.3K
C510 0.01
C512 25V4.7
Q503,504
2SD2144STA
MUTING

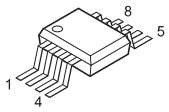

:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:AUDIO SIGNAL LINE
Q301
2SC3940AQSTA
REGULATOR
Q308
2SB621AQRSTA
REGULATOR
Q307
2SC3311ATA
RELAY DRIVE
Q311
2SC3311ATA
LED DRIVE
Q312
2SD592AQRSTA
REGULATOR
Q313
2SB621AQRSTA
REGULATOR
D316-321
RL1N4003N02
D304,307
1N5402BM21
D308,309
RL1N4003N02
CN110
CN109
CN106
21V
-21V


C MAIN CIRCUIT
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:AUDIO SIGNAL LINE
IC101
RSN35H1A
POWER AMP
Rch
Lch
—B MUTE AC LATCH —Vcc +Vcc
CP110
CP109
CP106
R138 1K
R137 1K
R244 1.5K
C168 6800P
C124 2700P
C120 1500P
R142 1.2K
R140 47K
C141 3300P
C122 16V10
C125 50V2.2
R123 330K
C126 50V2.2
R111 10
R155 680
D110 MA4150MTA
C132 25V10
L103 0.7μH
R117 10
C123 2700P
R115 47K
C167 6800P
C105 47P
R243 1.5K
R141 1.2K
C165 0.022
R241 47K
C119 1500P
R139 47K
C121 16V10
C106 47P
R116 47K
C166 0.022
R242 47K
L104 0.7μH
R118 10
21V
-21V
D602 1N5402BM21
D601 1N5402BM21
D604 1N5402BM21
D603 1N5402BM21
C601 3300
C602 3300
C131 1
C130 1
C603 0.1
H G F E
D C B A
W108
W601
CP108
CN601
FP401 RSFMB70KT-L
FP402 RSFMB70KT-L
FP403 RSFMB40KT-L
FP404 RSFMB40KT-L
PT701
CN401
CN402
CN403
CN404
CN405
CN406
CN407
CN408
AC16V
AC16V
AC12.6V
AC12.6V
AC3.8V
CN202
D104
D101-104 RL1N4003N02
D103
D101
D102
D107 MA165TA
C129 C130
RL101
PT102
CP201
AC 10.5V
D106 MA165TA
D105 MA165TA
R154 1K
R153 1K
D POWER TRANSFORMER (1) CIRCUIT
E POWER TRANSFORMER(2) CIRCUIT

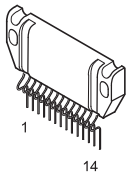
⇨:AUDIO SIGNAL LINE



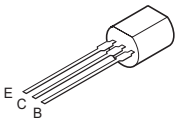
M5218AFPE3

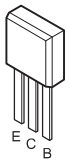


RSN35H1A



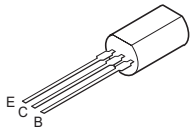
2SB621AQRSTA
2SD592AQRSTA



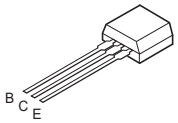


2SA1309ATA
2SC3311ATA
UN4111TA
UN4115TA
UN4211TA

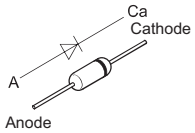
2SC3940AQSTA



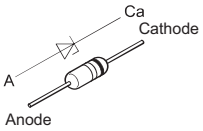
2SD2144STA

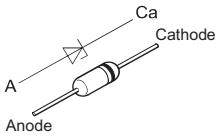


MA165TA



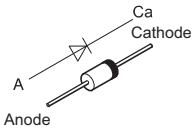
MA4051MTA

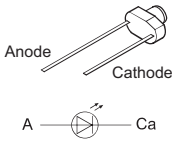




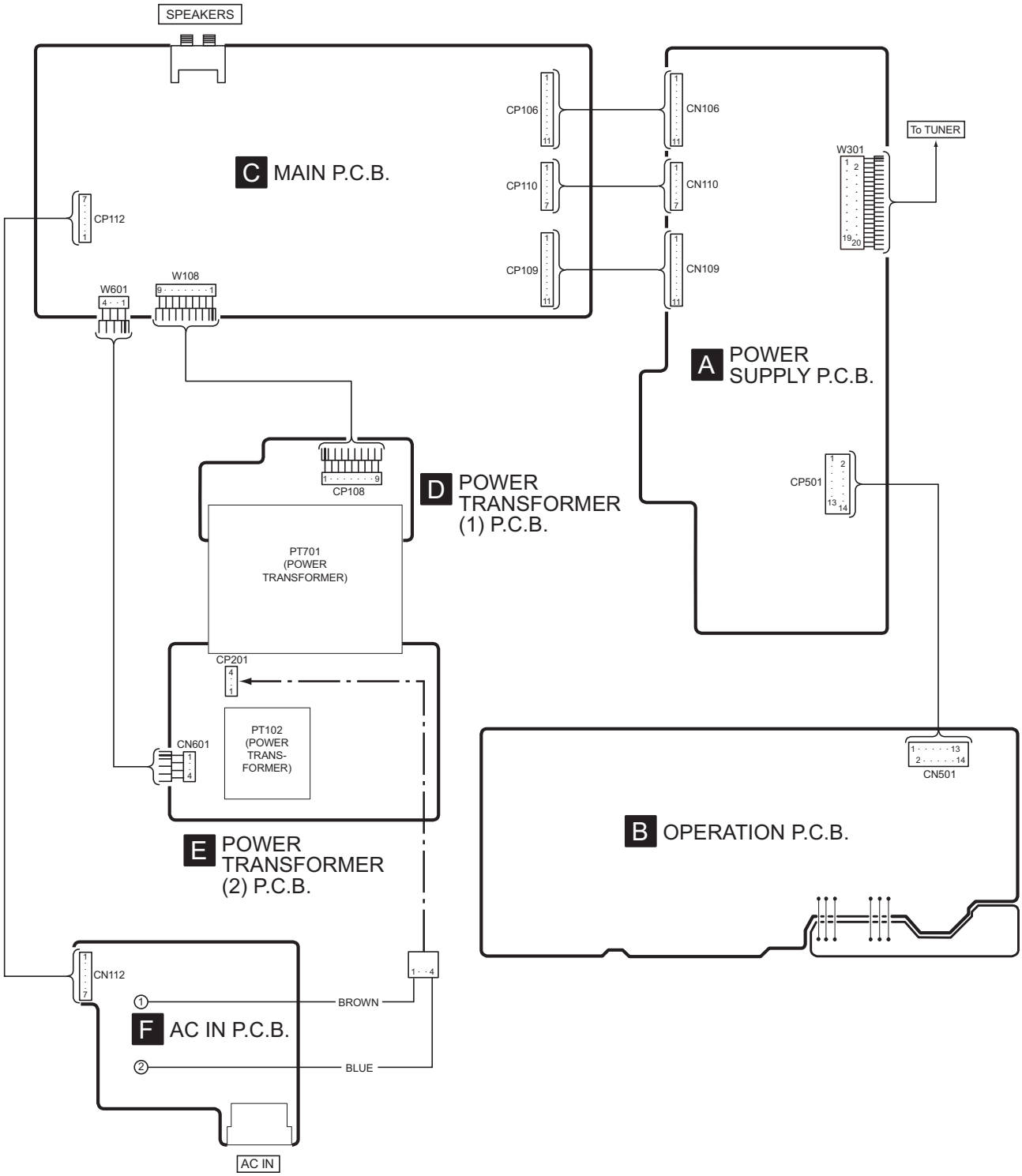
MA4091MTA
MA4120MTA
MA4150MTA
MA4160MTA
MA4240MTA

1N5402BM21
RL1N4003N02





SLR-325MC
SLR-325VC


SPEAKERS
C MAIN P.C.B.
CP106
CP110
CP109
CN106
CN110
CN109
CP112
W601
W108
W301
To TUNER
A POWER SUPPLY P.C.B.
CP108
D POWER TRANSFORMER (1) P.C.B.
CP501
PT701 (POWER TRANSFORMER)
CP201
CN601
PT102 (POWER TRANS-FORMER)
E POWER TRANSFORMER (2) P.C.B.
CN501
B OPERATION P.C.B.
CN112
BROWN
BLUE
F AC IN P.C.B.
AC IN

assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RHD30007-1S	SCREW	4	
2	RGL0532-Q	VGCA INDICATOR	1	
3	RGW0358-S	VOL KNOB	1	
4	RGW0363-S	SELECTOR KNOB	1	
5	RMZ0339	ZNR COVER	1	
6	XTB3+8JFZ	SCREW	2	
7	RGN1995D-K	NAME PLATE	1	(E)(EG)
7	RGN1995E-K	NAME PLATE	1	(EB)
7	RGN1995F-K1	NAME PLATE	1	(EP)
8	RKA0114-K	FOOT	4	
8-1	RKA0083-K	CUSHION	4	
9	XTB3+5JFZ	SCREW	4	
10	REE1087	FFC	1	
11	RGL0541-Q	STANDBY INDICATOR	1	
12	RGP0838A-S	SUB PANEL	1	
13	RGU1936-S	BUTTON,POWER	1	
14	RKM0412E-N	CASE COVER	1	
15	RGG0186A-S	AL PANEL	1	
16	RGK1332-N	VOLUME ORNAMENT	2	
17	RHN90001	NUT	2	
18	XTBS26+8J	SCREW	4	
19	XTBS3+8JFZ1	SCREW	8	
20	RHD26016	SCREW	1	
21	XTB3+20JFZ	SCREW	4	
22	XTB3+6JFZ	SCREW	4	
23	XTW3+15T	SCREW	2	
24	REX0962	FLAT CABLE / (W301/20P)	1	
25	RGK1333-S	SIDE PLATE(L)	1	
26	RGK1334-S	SIDE PLATE(R)	1	
A1	EUR7702010	REMOTE CONTROLLER	1	
A1-1	UR64EC2337E	BATT.COVER	1	
A2	REE1057	SPEAKER CORD	2	
A3	RQCA0808	SETTING GUIDE	1	(EB)
A4	RJA0019-1X	AC POWER SUPPLY / CORD	1	(E)(EG)(EP) / ⚠
A4	RJA0053-2X	AC POWER SUPPLY / CORD	1	(EB) ⚠
A5	SJP9009	AC PLUG ADAPTOR	1	(EB)
A6	RQCB0169	SERVICE CENTER LIST	1	(E)(EB)(EG)
A7	RQT5745-E	INSTRUCTION MANUAL	1	(E)<IA>
A7	RQT5744-B	INSTRUCTION MANUAL	1	(EB)(EP)<IB>
A7	RQT5742-D	INSTRUCTION MANUAL	1	(EG)<IC>
A7	RQT5743-H	INSTRUCTION MANUAL	1	(EG)<ID>
A8	RSA0007	FM INDOOR ANTENNA	1	
A9	RSA0033B	AM LOOP ANTENNA	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C105,06	ECBT1H470J5	50V 47P	2	F1D1H470A006
C107,08	ECBT1H104ZF5	50V 0.1U	2	F1E1H104A001
C109,10	ECBT1H473KB5	50V 0.047U	2	
C111,12	ECBT1H102KB5	50V 1000P	2	F1D1H102A012
C119,20	ECBT1C152KR5	16V 1500P	2	
C121,22	ECA1CAK100XB	16V 10U	2	
C123,24	ECBT1C272KR5	16V 2700P	2	
C125,26	ECEA1HSN2R2	50V 2.2U	2	
C129	ECA1CM331	330U	1	⚠
C130,31	ECBT1H105ZF5	50V 1U	2	F1E1H105A001
C132	ECA1EAK100XB	25V 10U	1	
C134	ECBT1H223KB5	50V 0.022U	1	F1D1H223A012
C136	ECA0JAK101XB	6.3V 100U	1	
C137,38	ECBT1H473KB5	50V 0.047U	2	
C141	ECBT1C332KR5	16V 3300P	1	
C142	ECA1HAM470XB	50V 47U	1	
C143	ECKR2H102ZF5	500V 1000P	1	
C163,64	ECBT1H104ZF5	50V 0.1U	2	F1E1H104A001
C165,66	ECBT1H223KB5	50V 0.022U	2	F1D1H223A012
C167,68	ECBT1C682KR5	16V 6800P	2	F1D1C682A010
C199	ECBT1H103KB5	50V 0.01U	1	
C201	ECA1CAK100XB	16V 10U	1	
C301	ECA1EAK4R7XB	25V 4.7U	1	
C302	ECBT1H103KB5	50V 0.01U	1	
C303	ECA1EAM101XB	25V 100U	1	
C304	ECA1HM101	100U	1	⚠
C305	ECA1EAM101XB	100U	1	⚠
C308	ECA1EM222	2200U	1	⚠
C309	RCE1EM471BV	470U	1	⚠
C311	ECKR1H103ZF5	50V 0.01U	1	F1B1H1030001
C312,13	ECBT1H103KB5	50V 0.01U	2	
C314	ECBT1H104KB5	50V 0.1U	1	
C315	ECBT1H103KB5	50V 0.01U	1	
C316	ECBT1H104ZF5	50V 0.1U	1	F1E1H104A001
C317	ECA1VM101	35V 100U	1	
C319	ECA1EAM331XB	330U	1	⚠
C321	RCE1VKA100BG	35V 10U	1	F2A1V1000011
C322	ECBT1H103KB5	50V 0.01U	1	
C323	ECA2AM100	10U	1	⚠
C324,25	ECA1HAM470XB	47U	2	⚠
C326,27	ECBT1H101KB5	50V 100P	2	F1D1H101A012
C328	ECBT1H104ZF5	50V 0.1U	1	F1E1H104A001
C329	ECA1EAM101XB	100U	1	⚠
C345	ECBT1H103KB5	50V 0.01U	1	
C346,47	ECA1EAK100XB	25V 10U	2	
C348	ECBT1H103KB5	50V 0.01U	1	
C359,60	ECA1HAKR22XB	50V 0.22U	2	
C361,62	ECA1EAK100XB	25V 10U	2	
C391	ECBT1H104ZF5	50V 0.1U	1	F1E1H104A001
C501,02	ECBT1H103KB5	50V 0.01U	2	
C503-06	ECBT1H101KB5	50V 100P	4	F1D1H101A012

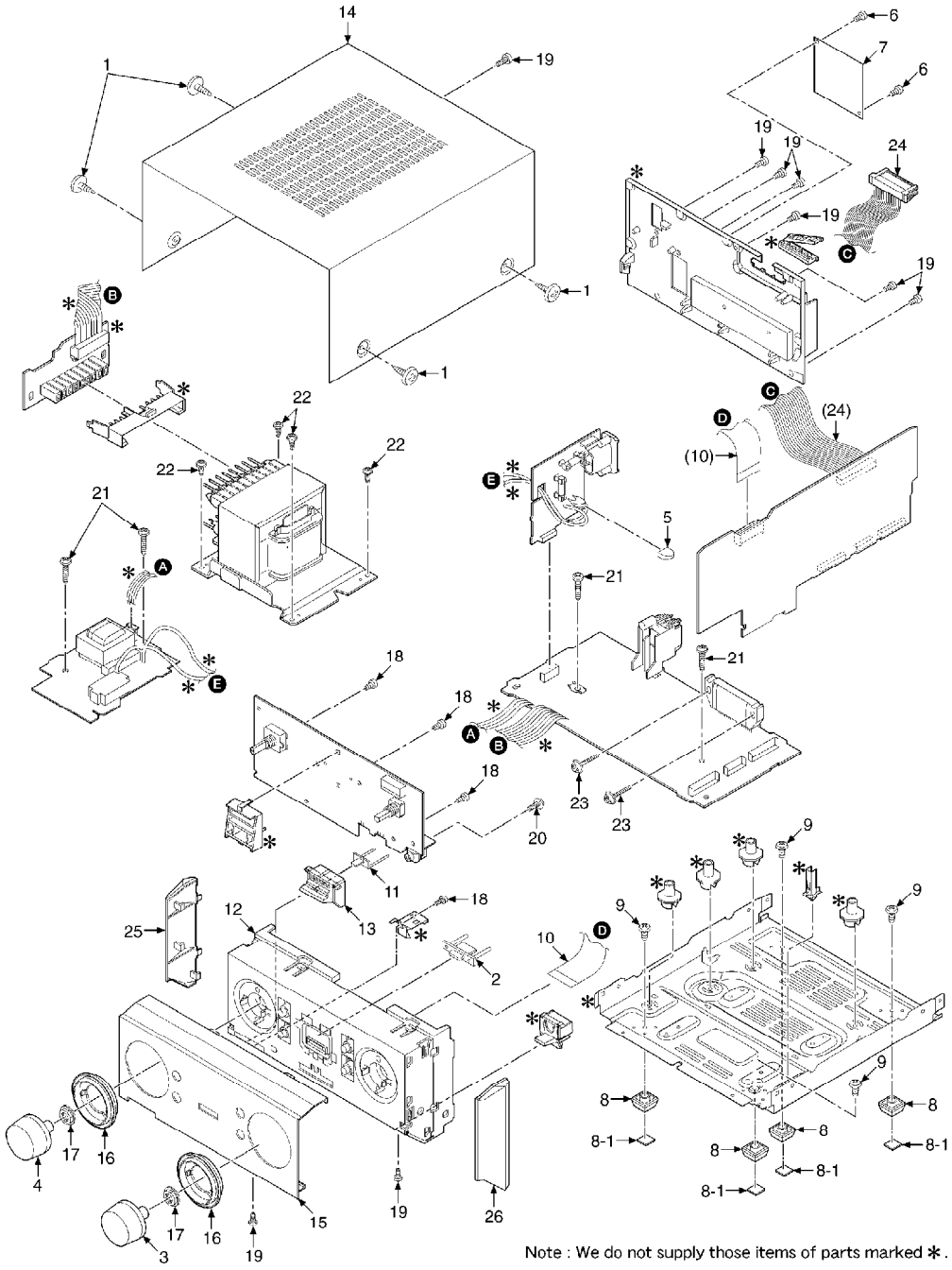
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C507,08	ECBT1H331KB5	50V 330P	2	F1D1H331A012
C509,10	ECBT1H103KB5	50V 0.01U	2	
C511,12	ECA1EAK4R7XB	25V 4.7U	2	
C513,14	ECA1HAK010XI	50V 1U	2	ECA1HAK010XB
C515,16	ECBT1H473ZF5	50V 0.047U	2	
C517	ECA0JAK221XB	6.3V 220U	1	
C520,21	ECA1HAK010XI	50V 1U	2	ECA1HAK010XB
C601,02	ECA1VAM332XE	3300U	2	⚠
C603	ECQE1104KF3	100V 0.1U	1	
CN106	RJU100W11	CONNECTOR(11P)	1	
CN109	RJU100W11	CONNECTOR(11P)	1	
CN110	RJU100W07	CONNECTOR(7P)	1	K1KB07A00018
CN112	RJU100W07	CONNECTOR(7P)	1	K1KB07A00018
CN202	SJS305-1	CONNECTOR(3P)	1	
CN401-08	RJS1A1101T1	CONNECTOR(1P)	8	
CN501	RJS1A6214-1	CONNECTOR(14P)	1	K1MN14C00002
CN601	RJS1A6604T1	CONNECTOR(4P)	1	K1MP04A00008
CP106	RJT100W11	CONNECTOR(11P)	1	
CP108	RJS9T6ZA	CONNECTOR(9P)	1	K1MP09B00005
CP109	RJT100W11	CONNECTOR(11P)	1	
CP110	RJT100W07	CONNECTOR(7P)	1	K1KA07A00082
CP112	RJT100W07	CONNECTOR(7P)	1	K1KA07A00082
CP201	RJP1A4204-1	CONNECTOR(4P)	1	K1KA03A00143
CP501	RJS1A6714-Q	CONNECTOR(14P)	1	K1MN14B00054
D101-04	RL1N4003N02	DIODE	4	⚠
D105-07	MA165	DIODE	3	MA2C165
D108	RL1N4003N02	DIODE	1	
D109	MA4051M	DIODE	1	MAZ40510M
D110	MA4150M	DIODE	1	MAZ41500M
D119,20	MA165	DIODE	2	MA2C165
D303	MA4160M	DIODE	1	MAZ41600M / ⚠
D304	1N5402BF	DIODE	1	⚠
D305,06	RL1N4003N02	DIODE	2	⚠
D307	1N5402BF	DIODE	1	⚠
D308-10	RL1N4003N02	DIODE	3	⚠
D312	MA4051M	DIODE	1	MAZ40510M
D313	RL1N4003N02	DIODE	1	⚠
D314	MA4091M	DIODE	1	MAZ40910M
D315	MA4240H	DIODE	1	MAZ42400H / ⚠
D316-22	RL1N4003N02	DIODE	7	⚠
D328,29	MA4120M	DIODE	2	MAZ41200M / ⚠
D330,31	MA165	DIODE	2	MA2C165
D501-04	MA165	DIODE	4	MA2C165
D505	SLR-325VC	LED	1	B3AAA0000487
D510	SLR-325MC	LED	1	B3ABA0000187
D601-04	1N5402BF	DIODE	4	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
F1	XBA2C04TB0	FUSE	1	K5D401BL0002 / ⚠
F2	XBA2C20TB0	FUSE	1	K5D202BL0001 / ⚠
FP401,02	RSFMB70KT-L	FUSE PROTECTOR	2	⚠
FP403,04	RSFMB40KT-L	PROTECTOR	2	K5G402A00010 / ⚠
IC101	RSN35H1A	IC	1	⚠
IC501	M5218AFPE3	IC	1	C0ABBB000163
JK101	SJS9236-1	AC JACK	1	K2AA2B000002 / ⚠
JK102	K4BC04B00030	SP TERMINAL	1	
JK501	RJJ37TK01-2C	HP JACK	1	K2HC103B0049
L101	RLQZ371	LINE FILTER	1	ELF15N035AN / ⚠
L103,04	RLQYR73MW1-0	SPEAKER COIL	2	G0ZZ00001606
P1	RPF0139-1	PROTECTION BAG(F.B.)	4	
P2	RPG5251	GIFT BOX(RS/SE)	1	
P2	RPG5252	GIFT BOX(ST/SL)	1	
P3	RPN1390	PAD(RS)	1	
P3	RPN1388	PAD(SE)	1	
P3	RPN1389	PAD(SL/ST)	1	
P4	RPG5253	GIFT BOX(SYSTEM)	1	(EG)
P4	RPG5254	GIFT BOX(SYSTEM)	1	(EB)
P4	RPG5255	GIFT BOX(SYSTEM)	1	(E)
P4	RPG5256	GIFT BOX(SYSTEM)	1	(EP)
P5	RPQ1142	SPACER	1	
P6	SPP740-1	PROTECTION BAG	1	
PCB1	REP3125B-M	MAIN P.C.B	1	[RTL]
PCB2	REP3126B-S	OPERATION P.C.B.	1	[RTL]
PT102	RTP1H3E001	POWER TRANSFORMER	1	⚠
PT701	RTP2M5B023	POWER TRANSFORMER	1	(EB) ⚠
PT701	RTP2M5E026	POWER TRANSFORMER	1	(E)(EG)(EP) / ⚠
Q105	2SA1309ATA	TRANSISTOR	1	2SA1309AWA
Q106,07	2SC3311ATA	TRANSISTOR	2	2SC3311A0A
Q117,18	2SC3311ATA	TRANSISTOR	2	2SC3311A0A
Q126	UN4211	TRANSISTOR	1	UNR4211
Q127	2SC3311ATA	TRANSISTOR	1	2SC3311A0A
Q301	2SC3940AQSTA	TRANSISTOR	1	2SC3940ARA / ⚠
Q307	2SC3311ATA	TRANSISTOR	1	2SC3311A0A
Q308	2SB621A-R	TRANSISTOR	1	2SB0621AH / ⚠
Q311	2SC3311ATA	TRANSISTOR	1	2SC3311A0A
Q312	2SD592AR	TRANSISTOR	1	2SD0592AR / ⚠
Q313	2SB621A-R	TRANSISTOR	1	2SB0621AH / ⚠
Q317	UN4211	TRANSISTOR	1	UNR4211
Q318	UN4111	TRANSISTOR	1	UNR4111

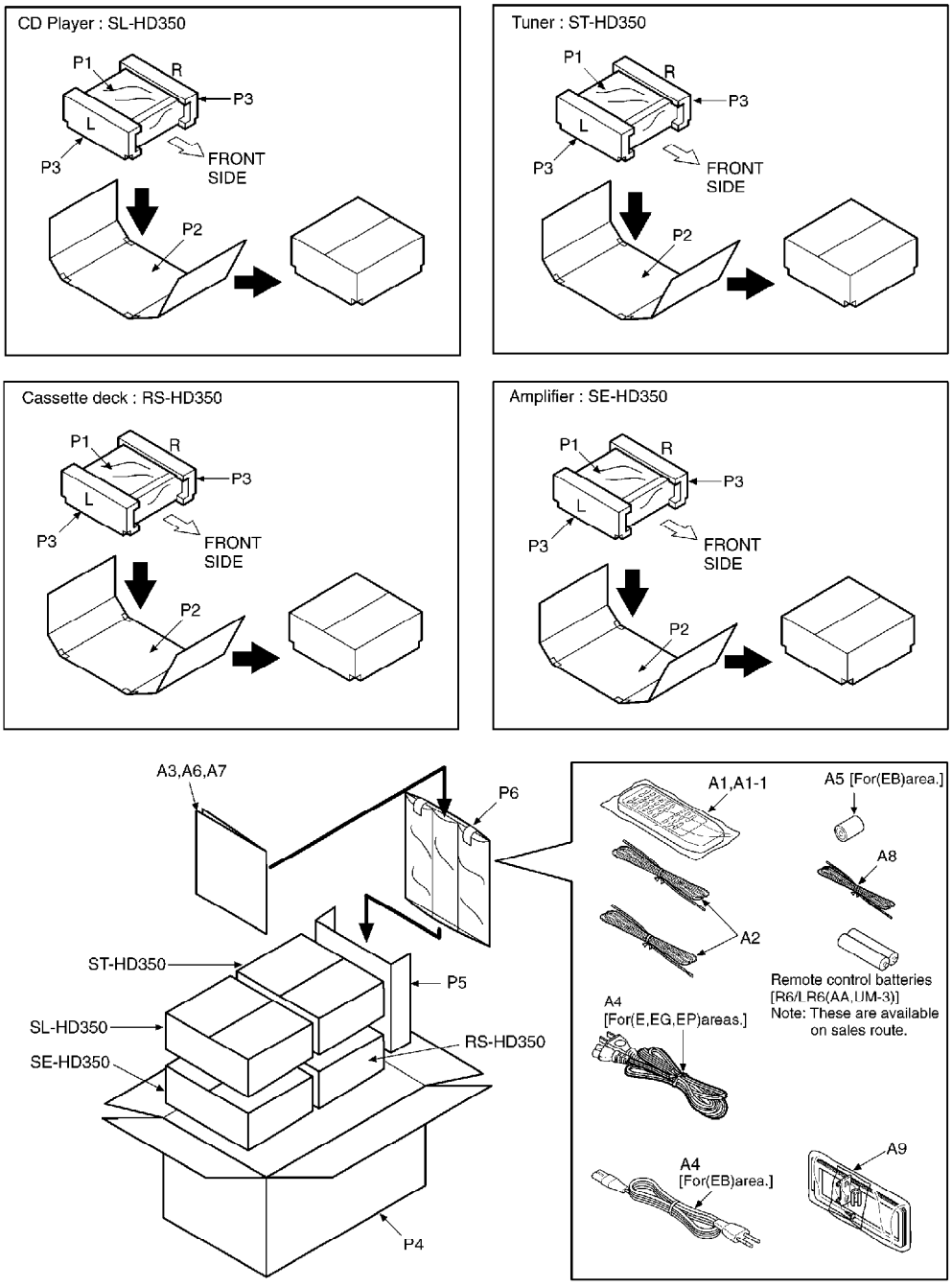
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q319	2SC3311ATA	TRANSISTOR	1	2SC3311A0A
Q320	UN4211	TRANSISTOR	1	UNR4211
Q501-04	2SC3327A	TRANSISTOR	4	
Q505	UN4111	TRANSISTOR	1	UNR4111
Q506	UN4115	TRANSISTOR	1	UNR4115
R111	ERD2FCG100	10	1	⚠
R112	ERDS2FJ102	1/4W 1K	1	
R115,16	ERDS2FJ473	1/4W 47K	2	
R117,18	ERDS2FJ100	10	2	⚠
R119,20	ERDS1FJ100	10	2	⚠
R121	ERDS2FJ823	1/4W 82K	1	
R122	ERDS2FJ124	1/4W 120K	1	
R123	ERDS2FJ334	1/4W 330K	1	
R137,38	ERDS2FJ102	1/4W 1K	2	
R139,40	ERDS2FJ473	1/4W 47K	2	
R141,42	ERDS2FJ122	1/4W 1.2K	2	
R153,54	ERDS2FJ102	1/4W 1K	2	
R155	ERDS1FJ681	680	1	⚠
R158	ERDS2FJ563	1/4W 56K	1	
R159	ERDS2FJ564	1/4W 560K	1	
R161	ERDS2FJ223	1/4W 22K	1	
R162	ERDS2FJ103	1/4W 10K	1	
R163	ERDS2FJ473	1/4W 47K	1	
R164	ERDS2FJ332	1/4W 3.3K	1	
R165	ERDS2FJ104	1/4W 100K	1	
R166	ERDS2FJ223	1/4W 22K	1	
R180	ERDS2FJ103	1/4W 10K	1	
R181	ERDS2FJ1R0	1	1	⚠
R187,88	ERDS2FJ103	1/4W 10K	2	
R190	ERDS2FJ102	1/4W 1K	1	
R213	ERD2FCG100	10	1	⚠
R241,42	ERDS2FJ473	1/4W 47K	2	
R243,44	ERDS2FJ152	1/4W 1.5K	2	
R301	ERDS2FJ392	1/4W 3.9K	1	
R306	ERDS2FJ473	1/4W 47K	1	
R307	ERDS2FJ103	1/4W 10K	1	
R309	ERDS2FJ331	1/4W 330	1	
R310	ERDS2FJ681	1/4W 680	1	
R311	ERDS1FJ3R3	3.3	1	⚠
R313	ERDS2FJ473	1/4W 47K	1	
R314	ERDS2FJ392	1/4W 3.9K	1	
R316	ERDS2FJ102	1/4W 1K	1	
R317	ERDS2FJ472	1/4W 4.7K	1	
R318	ERDS2FJ100	10	1	⚠
R319	ERDS2FJ101	1/4W 100	1	
R321	ERDS2FJ103	1/4W 10K	1	
R331	ERD2FCG100	10	1	⚠
R341	ERD2FCG100	10	1	⚠
R343,44	ERDS2FJ102	1/4W 1K	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R345	ERD2FCG100	10	1	⚠
R361,62	ERDS2FJ102	1/4W 1K	2	
R364,65	ERDS2FJ560	1/4W 56	2	
R366	ERDS2FJ103	1/4W 10K	1	
R367,68	ERDS2FJ561	1/4W 560	2	
R501-04	ERDS2FJ470	1/4W 47	4	
R505,06	ERDS2FJ683	1/4W 68K	2	
R507,08	ERDS2FJ332	1/4W 3.3K	2	
R509,10	ERDS2FJ223	1/4W 22K	2	
R511-14	ERDS2FJ102	1/4W 1K	4	
R515,16	ERDS2FJ223	1/4W 22K	2	
R519,20	ERDS2FJ102	1/4W 1K	2	
R521	ERDS2FJ821	1/4W 820	1	
R523	ERDS2FJ102	1/4W 1K	1	
R524	ERDS2FJ153	1/4W 15K	1	
R525	ERDS2FJ103	1/4W 10K	1	
R526	ERDS2FJ102	1/4W 1K	1	
R527	ERDS2FJ222	1/4W 2.2K	1	
R528,29	ERDS2FJ472	1/4W 4.7K	2	
R530	ERDS2FJ153	1/4W 15K	1	
R531	ERDS2FJ103	1/4W 10K	1	
R532	ERDS2FJ122	1/4W 1.2K	1	
R533	ERDS2FJ152	1/4W 1.5K	1	
R534	ERDS2FJ182	1/4W 1.8K	1	
R535	ERDS2FJ471	1/4W 470	1	
R538	ERDS2FJ474	1/4W 470K	1	
R539	ERDS2FJ154	1/4W 150K	1	
RL101	RSY0040M-0	RELAY	1	⚠
S501	EVQ11G05R	SW,POWER	1	
S503-07	EVQ11G05R	SW,PUSH	5	
VR501	K9AA012A0003	V.R.,INPUT SELECTOR	1	
VR502	EVEKC2F2524B	V.R.,VOLUME	1	
Z101	ERZV10V511CS	ZNR	1	⚠

15. Cabinet Parts Location



16. Packaging



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